

MHT CET 2024 Biology Answer Key PDF

Answer Key

Question 1 Correct Answer – (2) ANF dilates blood vessels, while Angiotensin 2 promotes sodium reabsorption

Explanation: ANF is a vasodilator that counteracts high blood pressure by dilating vessels and promoting sodium excretion, whereas Angiotensin 2 acts as a vasoconstrictor and stimulates sodium reabsorption. code Code

Question 2 Correct Answer – (2) Degeneracy of the genetic code

Explanation: Degeneracy (or redundancy) allows multiple distinct codons to translate into the same amino acid, ensuring that a single amino acid is specified non-ambiguously despite any variations in tRNA anticodons.

Question 3 Correct Answer – (3) Clitoris

Explanation: The penis in males and the clitoris in females are developmental homologues, both originating from the same embryonic genital tubercle and sharing erectile tissue functions.

Question 4 Correct Answer – (4) The urinary bladder does not typically secrete enzyme

Explanation: The primary physiological function of the urinary bladder is the transient storage and subsequent voiding of urine; it does not possess glandular tissues for enzyme secretion.

Question 5 Correct Answer – (1) Pollen grains develop from megaspores.

Explanation: Pollen grains represent the male gametophyte and develop from microspores produced within the pollen sacs of anthers, whereas megaspores develop into the female gametophytes.

Question 6 Correct Answer – (3) There are 64 codons, and some of them exhibit degeneracy

Explanation: Out of the 64 total triplet codons, 61 code for the 20 standard amino acids (exhibiting degeneracy) while the remaining 3 function as stop codons to terminate translation.

Question 7 Correct Answer – (3) Milk

Explanation: Milk is a classic liquid-in-liquid colloidal system (emulsion) in which liquid fat globules are finely dispersed throughout an aqueous medium.

Question 8 Correct Answer – (2) Stephen Hales

Explanation: Stephen Hales proposed the theory of root pressure, demonstrating that osmotic active forces in the roots can push xylem sap upward against gravity.

Question 9 Correct Answer – (3) A substance that can transfer genetic material from one bacterium to another

Explanation: Griffith's transforming principle was defined as a heat-stable component from the virulent S-strain that converted the living, non-virulent R-strain into a virulent form.

Question 10 Correct Answer – (1) Oswald Avery

Explanation: Frederick Griffith discovered the phenomenon of transformation in 1928, but Oswald Avery, along with MacLeod and McCarty, first chemically identified the transforming principle as DNA in 1944.